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Representations of Moscow Residents about the Functions of RFID Microchips and the Risks Associated with Their Implantation

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Microchips implanted into the body could be one of the next steps in developing technology that reflects body health indicators, identifies people, and simplifies daily tasks. The COVID-19 pandemic and the vaccination against the virus have brought the phenomenon of microchip implantation to the forefront of media and consciousness. In the article we identify opinions about the functions and risks of RFID microchips based on interviews with Moscow residents (14 in-depth interviews conducted between March and April 2022). According to the empirical data, the identification function aids a person in remembering all their documents, while the storage of medical information is genuinely helpful but rarely used in daily life. While carrying out routine tasks does not seem serious to the informants, it also enables them to fully appreciate the value of the microchip. Additionally, it was discovered that while some groups of informants considered health, privacy, and hacking risks to be important, they did not find physical robbery, inequality, or religious issues to be frightening or to be particularly significant.

Keywords: microchip; RFID microchip; functions and risks of RFID microchips; residents of Moscow

To maintain existence in the modern world, one needs a variety of accounts, passwords, and electronic cards. This is one of the prerequisites for the decree of the President of the Russian Federation for the introduction of electronic passports[1]. Implanting chips into the body could be the next development in technology for personal identification, reflecting the body's health indicators, and making daily tasks easier[2]. Microchips with RFID technology are rice grain-sized implants that people integrate into their bodies. People can use RFID microchips to perform the following tasks: identification [Gauttier, 2018], payment for purchases, storage of medical data [Fisher, Monahan, 2008; Baker, 2016; Archipova, Kuchmaeva, 2018], everyday tasks (opening/closing doors, unlocking smartphones/laptops).

The introduction of microchips has already begun to spread actively in some countries. The most complete example is Sweden's experience[3], where since 2015 biochips have been implanted into the body to solve a list of different tasks. Another case is Belgium[4], where people use microchips that contain information about their bank accounts. Companies that offer to buy and/or implant RFID microchips already exist in Russia[5].

RFID as biomedical technology is influenced by many factors, including the opinion of the population as the final users of these innovations [Nelson, Winter, 1982]. COVID-19 pandemic and vaccination against this virus have actualized the phenomenon of microchip implantation. For example, "new Masons" theory was spreading that the government announced mandatory vaccination in order to "chip" the population. According to Yandex, this myth is found in 27% of requests for fakes and other speculation about coronavirus and vaccination[6]. Russian research company VTSIOM[7] found that most people were aware of the implantation of microchips (84%), and almost 80% of them had a negative attitude to this technology.

Thus, even though Russia and the whole world are on the path of innovative development, allowing the mass distribution of medical RFID microchips, the population is wary of them. Due to the lack of research on this topic, we cannot

[1] Ukaz prezidenta Rossijskoj Federacii o pasporte grazhdanina Rossijskoj Federacii, soderzhashhem elektronnyj nositel informacii [Decree of the President of the Russian Federation on the Passport of a Citizen of the Russian Federation Containing an Electronic Data Carrier]. URL: https://turov.pro/wp-content/uploads/2021/04/proekt-ukaza-prezidenta-rf-o-pasporte-grazhdanina-rossijskoj.pdf (accessed 20 October 2021)

[2] Informacionno-kommunikacionny`e texnologii [Information and Communication Technologies] // Globalnye texnologicheskie trendy [Global Technological Trends]. URL: https://www.hse.ru/data/2015/04/27/1098311314/Trendletter%20%235%20(2015)_final.pdf (accessed 20 October 2021)

[3] Thousands of People in Sweden Get Microchip Implants for a New Way of Life // World/Europe. URL: https://www.scmp.com/news/world/europe/article/2145896/thousands-people-sweden-get-microchip-implants-new-way-life (accessed 20 October 2021)

[4] V Belgii nachalos chipirovanie lyudej [In Belgium the Chipping of People Has Begun] // Pikabu. URL: https://pikabu.ru/story/v_belgii_nachalos_chipirovanie_lyudey_4815299 (accessed 20 October 2021)

[5] Implant-Chip. URL: https://implant-chip.ru/ (accessed 01 February 2022)

[6] Infodemiya v epoxu koronavirusa [Infomedia in the Era of Coronavirus] // Yandex. URL: https://yandex.ru/company/researches/2021/covid-fakes (accessed 01 October 2021)

[7] Chipizaciya: (ne)prizrachnaya ugroza? [Chipization: (not)a Phantom Threat] // VCIOM. URL: https://wciom.ru/analytical-reviews/analiticheskii-obzor/chipizacziya-neprizrachnaya-ugroza- (accessed 11 November 2021)

understand the depth of this attitude. So, our research question arises: what representations about the functions and risks of RFID microchips have been formed among the population of Moscow against the background of the COVID-19 pandemic? We argue that RFID microchip causes fear among the population, because it is an invasive innovation (one that penetrates the body). It is also expected that people without higher education will broadcast more generalized concerns and risks when implanting an RFID microchip compared to people with higher education. Moreover, we expect that people with different socio-demographic characteristics will have different representations.

New Technologies and Representations about Microchips

Representations about microchips can be considered from the side of a new technology on the market, as well as from the side of the sociology of the body, such as the object that is implanted in the body. The Technology Acceptance Model (TAM) introduced by Fred Davis [Davis, 1989] is the dominant model for the study of factors influencing the adoption of technologies [Marangunic N., Granic A., 2015].

This model is typically used to perform a quantitative evaluation of the predictors, for instance Slovenian researchers used this framework to create a questionnaire [Werber, Znidarsic, 2015; Werber, Baggia, Znidarsic, 2018]. But it is also interesting to analyze predictors from TAM (Perceived ease of use, Perceived usefulness, Perceived trust, Behavioral Intentions to Use, and Health concerns) in qualitative research.

The following risks are connected to the use of microchip implants with the aforementioned functionality:

- Social risks [Monahan, Fisher, 2010] — possible inequality between people with and without microchips;
- Risks associated with violation of human privacy [Michael, Michael, 2006; Lockton, Rosenberg, 2005; Michael, Michael, 2009];
- Health-related risks [Gadzheva, 2007; Katz, Rice, 2009; Foster, Jaeger, 2007] — unknown consequences that can be detected in the short and long term due to an exterior body,
- Risks of robbery [Neumann, Peter, Lauren, 2007].

Cultural and religious issues[1] — in some cultures, incisions on the skin are prohibited marks.

According to the new technology approach [Werber, Baggia, Znidarsic, 2018], weighing risks when using technology plays an important role at the individual level of technology adoption [Hudson, Caplanova, Novak, 2015]. If a person is aware that using a new technology has personal benefits that outweigh any potential risks, he or she can adopt a positive attitude towards it. On the other hand,

[1] RFID: Sign of the (End) Times? // Wired. URL: https://www.wired.com/2006/06/rfid- sign-of-the-end-times/ (accessed 07 February2022)

someone who does not personally require this technology might be opposed to it because he or she is aware of the negative effects in the global perspective [Barnett, Cooper, Senior, 2007].

Potential users are worried about privacy concerns, the security of their personal information, and the effects of implants on their health. The presence of negative experiences or instances where government agencies used methods of controlling people without their knowledge are important factors [Werber, Baggia, Znidarsic, 2018].

It is impossible not to mention the sociology of the body, as microchips are implanted into the human body. Since the mid-20th century, medical technologies have demonstrated how the body, as a biomedical object, starts to change because of medicalization. As a result, the body is no longer unchangeable and untouchable [Voynilov, Polyakova, 2016].

There are some other theoretical foundations which are frequently used to investigate new technologies and their integration into the body, for example, bio-politics (M. Foucault) and digital capitalism (S. Zuboff). The focus of these theoretical perspectives is also important for futher research.

Research methodology

We use the qualitative methodology to conduct the research in connection with the specifics of the study — the focus is on deep understanding of functions and risks, as well as representations about them. We chose semi-structured interviews to collect data. We collected data between March and April 2022. The sampling of the study included residents of Moscow because, firstly, the regions of our country have different levels of readiness for innovation. When choosing the capital as the geography of the recruit, it was possible to get a more complex picture, because people in this city are most affected by innovations. Secondly, little research has been done on how Russians perceive microchips and how they feel about them, so we decided to start with the capital as the most innovation-ready center of the country.

We decided to examine a typical case sampling so that we could establish a foundation for future research. The VTSIOM survey results[1], the only study available at the time of writing this article, served as the basis for the typical case sampling. We chose an inductive understanding of the typical: the most common signs — informants who have heard something about microchips, but are unaware of the details about them, and a negative attitude about RFID microchips. In order to achieve the diversity of the typical case sampling, we decided to select informants with different socio-demographic characteristics by gender, age and education. People with higher education and without it were invited, as it was expected to see different representations about RFID microchip technology. For

[1] Chipizaciya: (ne)prizrachnaya ugroza? [Chipization: (not)a Phantom Threat] // VCIOM. URL: https://wciom.ru/analytical-reviews/analiticheskii-obzor/chipizacziya-neprizrachnaya-ugroza- (accessed 11 November 2021)

example, among Russians, those with lower levels of education are more frequently afraid of secret "chipping" through vaccination against COVID-19. Additionally, people with higher education are more open to innovation [Pishnyak, Khalina, 2021], so they might perceive this technology differently than those without higher education.

This work has exploratory nature because there were no qualitative research works studying the people's attitude to the microchips, so the goal of this research was to look at the typical opinions, but not at the extreme ones. It will help to describe the features of the representatives which are not fully included in quantitative research works because they are usually aimed to determine the factors of making a decision to implant a microchip. Based on the earlier studies, it was not possible to draw any conclusions about the groups of people.

The final sampling included 14 people: 8 men and 6 women, 8 people with higher education and 6 people without higher education. 4 informants in the age range of 18–24 years and 25–34 years, 3 informants in the intervals of 35–44 years and 45–59 years. In the process of data collection, the interviews were coded, and the information received was reflected. We revealed that the personal characteristics of people affect the features of meaningful ideas about RFID microchips more than socio-demographic characteristics as it had been assumed before the field works started. For this reason, special attention was paid to the following qualitative characteristics of informants. The sampling can be divided into three groups based on the level of interest in the subject of innovations and new technologies: strongly interested (5 people), slightly interested (4 people), and not interested (5 people). A group of those who do not trust the state (5 people), those who have a strongly negative attitude to interventions in the body (4 people), as well as a group of older people are selected separately (3 people). We applied a "snowball" strategy to recruit participants. The next investigations may recruit extreme groups of people with different attitudes to microchips including people who are ready to implant them, deeply religious people, as well as people who believe in the conspiracy theories about vaccination.

We developed a guide using The Technology Acceptance Model (TAM), including possible threats using the RFID microchips and a person's confidence that the state, banks, and healthcare systems will be able to ensure the security of confidential data.

We used deductive and inductive thematic analysis techniques: functions and risks were divided into categories based on theoretical reviews of the literature and earlier studies, as well as new categories were added directly from the data if participants suggested additional functions or risks.

Representations about the functions of RFID microchips

In this part we would like to provide the results of the research. We divided the representations into groups depending on the characteristics of the informants in order to better understand the specifics of the representations about

RFID microchips. As a result, two groups were distinguished based on their level of interest in innovations: those who were interested and those who were not, as well as a group of people who did not trust the government and those who had a strong negative opinion of body interventions. We conclude that people did not trust the state based on the informants' arguments during the interview because there were no direct questions about it in the guide. There are no features in the representations of people with and without higher education, who are interested in innovations to an average degree, people of different ages, men and women.

At the beginning of the interview, we discussed what microchips are, people's ideas about them and why people need them. Informants typically knew or at least guessed about some of the functions of microchips. After the assumptions of the informants, we gave them a definition of RFID microchips, so all the participants were in the same semantic field. Then we discussed the functions that microchips can perform. The functions of identification, storage of medical data, payment for purchases and everyday tasks were offered for discussion during the interview. In addition, informants could assume other functions that are not in this list and express their ideas about them.

1. Function — identification

Basically, informants note such a feature of microchips in the aspect of identification that it cannot be lost or forgotten. People who face such problems in life most actively say this thesis:

> "*I forget everything a lot, it would help me, I would not worry, I forgot something, I did not forget*" (m., 39 years old, higher education, 04.21.2022).

Similar conclusions are in the study of the Slovenian population [Werber, Baggia, Znidarsic, 2018]. The microchip is helpful because it enables people to "*not bother*", it is associated with simplifying life, and eliminates the need to recall documents and confirm their availability.

The fact that the microchip is always with you and it is impossible to forget it, at the same time, has the reverse side of the coin: informants are concerned that they cannot turn off or left the microchip at home:

> "*As if all this can be turned off, but the chip cannot, that it is always with you and yes, there is truth in this. The fact that it is impossible to turn it off, leave it or do something with it*" (w., 32 years old, without higher education, 04.22.2022).

Another feature is that the microchip allows people not to carry the entire package of documents with you. In this sense, a microchip does for a person what he himself does not need to do daily.

2. Function — storage of medical data

According to informants, the ability to store medical data is very beneficial because it is connected to maintaining health and saving lives, and it can be

especially helpful in emergency situations. In addition, people appreciate this feature because it will help with document flow, which they dislike and do not want to do. Unfortunately, not everyone sees the applicability of this function for themselves since emergency situations happen infrequently. According to a study by Slovenian researchers [Werber, Baggia, Znidarsic, 2018], participants are most willing to use a microchip for medical purposes, which does not match the outcomes we found.

3. Function — payment for purchases

Informants who are interested in innovations consider this function as "*cool*":

"*Payment is more fun, that is, an extra point*" (m., 23 years old, without higher education, 04.14.2022).

This function only makes sense to them as an addition to other functionality. The protection of personal data is the main issue.

Informants who are not interested in new technologies recall that there are several ways that simplify the payment process. Informants reflect and find it interesting that each new payment method "*simplifies*" this process, accordingly, it will become even more convenient to make purchases with a microchip. This feature is particularly useful now when Apple Pay is not working in Russia anymore.

4. Function — everyday tasks

Typically, informants do not take this function seriously. They refer to it as "*naughtiness*" and they emphasize that carrying out daily tasks like opening doors and answering phones are "*not complicated*" and "*not difficult*" for them to do. As a result, they do not require a microchip for such tasks because their implementation is already simple and does not require further simplification. At the same time, informants report that a microchip would be most relevant for tasks that a person performs every day, only then they can use its full value. Thus, the microchip will help to make a person's "*routine*".

5. New additional features

Informants would be interested if the microchip worked abroad and could replace a foreign passport:

"*Some kind of passport. It would be very convenient. It will be possible to be a man of the world, awesome*" (w., 25 years old, without higher education, 04.18.2022).

This would strengthen globalization. Additionally, this microchip function would facilitate quicker document verification, airport security, and hotel check-in.

When discussing the purposes of RFID microchips, informants contend that it would be fascinating for them to possess a microchip that could keep track

of their general health status, the condition of their internal organs, and basic health indicators. They consider this function really unique.

It is interesting that the current functions of microchips do not attract, as they are not unique. The functions that the microchip currently performs do not attract informants who are fans of technology:

> "*In general, I consider the functionality to be partially useless in its current form. Why perform such a complex multi-pass just to read some information?*" (m., 36 years old, higher education, 04.16.2022).

That is, the implantation of a microchip itself is "*not justified*" while there are alternatives to this technology. Informants believe that the microchip should have a unique functionality. If irreplaceable functions appear in the microchip, it will make a person's life more comfortable and happier, and it will become a "*thing*" or "*chip*"

Representations about the risks associated with the implantation of RFID microchips

At first, the informants assumed what risks take place when implanting a microchip, and then we offered the following risks for discussion: health risk, risk of privacy violation, risk of hacker attacks, risk of physical robberies, risk of inequality, and religious issues.

1. Health risk

The risk of negative effects on the body is very serious, respectively, this is the main question about the consequences of the implantation of RFID microchips. The study of Andersson and Bengtsson [Andersson, Bengtsson, 2019] shows that the health risk and the risk of new crimes do not frighten respondents, however, health risks were mentioned in our study. The possibility of infection and negative health consequences is also described in Kazmeyer's article[1].

Based on the risks which people mentioned, we can distinguish two types of anxiety — side effects in the short term, which can be noticed immediately, and in the long term, that after a long time, people realize that microchips have an impact on their health. In the first case, people talk about almost instant suppuration, allergies to metal. In the second case, informants see a greater threat, since this negative influence will only increase, have a "*cumulative effect*":

> "*And only after years, decades, we learn that these chips have a detrimental effect on our body. After a huge amount of time. And, perhaps, because of this, some kind of total infection, a total disease will grow, which will have a harmful effect*" (m., 24 years old, without higher education, 03.18.2022).

[1] The Advantages and Disadvantages of Implantable RFID Tags // It Still Works. URL: https://itstillworks.com/advantages-disadvantages-implantable-rfid-tags-18587.html (accessed 01 February 2022)

Informants discuss "*harmful and side effects*", "*discomfort*", "*rejection*", "*interference*", "*costs*", "*dangers*" in the context of health, all of which are very serious consequences. These metaphorical, emotionally charged words emphasize the serious danger and worry that informants face. In contrast, informants who are interested in technology are not afraid of harm to the body, as they know about the existence of safe surgical technologies for implantation into the body.

Informants worry not only about the microchip's detrimental effects on human health but also about the possibility that they or the environment could negatively impact the microchip and cause to its breakdown.

Informants, who have a negative attitude to implantation into the body, most emotionally express their opinion:

> "*This will violate the integrity of my body, I do not like anything exterior in my body, this is specifically my personal rejection*" (w., 52 years old, without higher education, 2.04.2022).

2. Risk of privacy violation

If we do not consider the specific group features of representations about location tracking, informants do not see a real danger in it. People admit that they do not break the law, so it is not a problem for them that the state will know their location. People also don't think the government will monitor every citizen.

It is interesting that people find a positive side of location tracking — in critical situations, a person can be found and saved:

> "*It will guarantee my safety in any case. If something happens to me, they will know how to find me and how to save me*" (w., 25 years old, without higher education, 04.18.2022).

In this situation, a microchip ensures people's security. Informants who are interested in technology point out that tracking a person's location is still a possibility, so the idea of a microchip does not frighten them.

In 2015 [Werber, Znidarsic, 2015] researchers from Slovenia came to the conclusion that the risk of violating citizens' privacy is the most important one. Although the data from our study cannot provide a quantitative evaluation of this risk, certain informant groups identify it as the most serious and describe it in a highly emotional manner. However, the discussion of freedom and choice is crucial because, according to informants, everyone loses them when microchips are implanted:

> "*This is some kind of feeling of freedom, that you can take it, or you can not take it, so, you have a choice*" (w., 23 years old, higher education, 03/26/2022).

This risk is the most terrifying for people who do not trust the state and the government. Even though it is still technically impossible, they think that this control

will really happen. They do not even call it a risk, but "*fear*". People explain such emotions by the current situation with privacy in the country:

> "*I will not be chipped in Russia. Due to, perhaps, paranoid, but thinking about tracking, about the lack of privacy in our country*" (m., 24 years old, without higher education, 03.18.2022).

In 2018 [Werber, Baggia, Znidarsic, 2018], a study of the Slovenian population showed that the lack of trust in the state is a serious barrier to the implantation of a microchip, we can observe the same picture in our study.

In addition, some people are sure that a person can be deleted by connecting to a microchip, and he or she will become "*nobody and nothing*":

> "*A person can be destroyed instantly, wiped off from the face of the earth as a person, as a species, just erase everything as an unnecessary file, just "delete the page" and there is no person*" (w., 52 years old, without higher education, 02.04.2022).

People are afraid to be "*as plain as can be*", "*like an open book*", "*under the hood*" that all information about them will be known:

> "*In the future, what such a thing can lead to in general, and how now people can be under the hood*" (m., 30 years old, without higher education, 03.15.2022).

Previous research indicated [Neumann, Weinstein, 2006] that a variety of issues relating to personal data security and confidentiality may overshadow the benefits of RFID microchips. We can draw the same conclusion in our study, since people, for whom this risk is a serious barrier, do not deny the benefits of microchips, but are not ready to use them because of the threat of privacy.

The most emotional informants are those who categorically oppose body interventions when discussing the dangers of location tracking. They have complete faith that it will be possible:

> "*I think that if such a chip is implanted, then it will not have only this one function. There will be several different functions there at once. For example, location. And then I immediately say that no, I am against it*" (w., 43 years old, higher education, 04.27.2022).

People who do not understand the topic of technology believe that it will be possible to control people with the microchips. They do not know how it might be, but they believe it will. Informants think that the primary objective of implementing such technology may be to control humanity as a "*herd*" on a global scale.

People who don't trust the state express the following worries: users may not be aware that the microchip have hidden functions, like location tracking:

"*Everyone will think that they will upload a medical history, and they will also upload my data and a tracking source there as an asterisk so that they will follow me, listen to me*" (m., 24 years old, without higher education, 03.18.2022).

Such informants believe that the information stored in the microchip will be used against them:

"*They are afraid to get some kind of punishment for this: they do not know you, but then they find out that you were somewhere in the square, and there was a rally, for example. They will come to you, ask what you were doing there, who needs it?*" (m., 47 years old, higher education, 03.17.2022).

Informants are sure that this technology will become voluntary and compulsory. Restrictions or prohibitions will be introduced for those who do not want to implant microchips. Ethics researchers [Foster, Jaeger, 2008] view this issue as utopian, but the informants in this study seriously discuss the threat of compelling people to engage in "*chipping*".

3. Risk of hacker attacks

Informants are afraid that there will be scammers who will somehow read information or steal money without a person's knowledge. Due to the fact that information is now also stolen from a distance, this risk does not scare informants who follow the technological world.

Informants, who are not interested in technology, believe that hacker attacks will remain at the same level, they will not be more or less due to the spread of microchips.

4. Risk of physical robberies

In this aspect, representations can be divided into two parts. Firstly, physical extractions of the microchip take place, but they are unlikely to really exist, since our society is civilized. People call such methods "*barbaric*" and "*wild*". And secondly, informants do not trust these robbery techniques because they are more complicated than the ones currently in use:

"*It seems to me that it is easier to steal a credit card than to cut a chip out of your hand. And what… are you going to walk around with a piece of meat and put it in an ATM somewhere? It is kind of difficult*" (m., 47 years old, higher education, 03.17.2022).

People who are interested in technology are also unconcerned by this risk because similar crimes are already committed in order to steal phones and other valuable items.

The informants from our study do not believe that the emergence of new types of crimes poses a threat to society, despite the fact that the data from Gangadharbatla's study of America [Gangadharbatla, 2020] indicated it.

5. Risk of inequality

In this part, we can identify one common pattern — informants do not see the microchip as a new cause of inequality because it already exists. Although Monahan and Fisher's study [Monahan, Fisher, 2010] revealed discrimination related to the difference in the speed of servicing people with and without microchips, the informants from Moscow do not see any signs of inequality in this, because simplified identification of people with RFID microchips seems logical to them.

6. Religious issues

Some informants believe that if a person is a follower of a religion which prohibits injections, he or she will deny the using of microchips. Others believe that a person's religious beliefs cannot influence their choice. Additionally, there is a belief that religion will impede global development, including the development of microchips.

Conclusion

In this work, we took one of the first steps in studying the representations about the functions of RFID microchips and the risks that occur during their implantation. We assumed that socio-demographic characteristics such as gender, age and higher education determine the representations, but it was found that only the elder age group of people (45–59 years) has unique representations as well as the degree of interest in technology, the lack of trust to the government, negative attitude to the body injections matter.

People's representations about the functions of this technology practically match with its possible real applications. However, current functionality of microchips does not excite informants who are interested in innovations, they would like to see more unique features. Using a microchip for routine tasks has proven to be contradictory: some informants do not take it seriously and believe that there is no need to simplify already simple tasks, while others think that only through routine use will people be able to fully appreciate the value of a microchip.

The risk of danger to health and the body is a serious barrier that worries informants. However, technology-interested informants claim that this risk is unimportant to them because devices that fit inside the human body are already made of safe materials. People who do not trust the government are often unwilling to use a microchip despite its benefits because they are certain that the government will track them and use their data for its own purposes. The fact that it may be possible to control people "*like a herd*" is significant for other groups of informants. It is unexpected that some informants see a positive side in the possible tracking — it will help to find them and save their lives. The fact that the microchip is always with you has the reverse side of the coin — it scares people that it cannot be turned off or left, it deprives them of choice and freedom.

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Представления жителей Москвы о функциях RFID-микрочипов и рисках, связанных с их вживлением

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Одним из шагов в совершенствовании технологий для отражения показателей здоровья, идентификации личности и облегчения повседневных задач потенциально может быть имплантация микрочипа в тело. Пандемия COVID-19 и вакцинация от этого вируса актуализировали обсуждение в СМИ и в обществе феномена вживления микрочипов. В данной статье мы анализируем представления о функциях и рисках RFID-микрочипов на базе интервью, проведенных с жителями Москвы (14 интервью, март-апрель 2022 года). Мы обнаружили, что функция идентификации личности воспринимается как полезная при утере документов, в то время как функция хранения

медицинских данных воспринимается как условно полезная, но малоприменимая в жизни. Также было установлено, что риски для здоровья и связанные с нарушением конфиденциальности и хакерскими атаками, важны для некоторых групп информантов, а риски физического ограбления и неравенства, религиозные вопросы не пугают и кажутся несущественными.

Ключевые слова: микрочип; RFID-микрочип; функции и риски RFID-микрочипов; жители Москвы

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